

Abstract

This invention pertains to apparatus and method for initiating detonation in a chamber of tubular or other shapes, which can be a combustor for a propulsion engine, such as a pulse detonation engine. This invention is characterized by detonation initiation at high pressure and temperature that is generated by imploding shocks induced by jets in different directions around the chamber. Further, the detonation initiation is achieved without energy depositing devices, such as electric spark plugs and lasers and without any fuel or other chemical additives.